

## MEMORANDUM

<b>DATE:</b>	September 26 <sup>th</sup> , 2016
<b>FROM:</b>	Eric Lancaster
<b>SUBJECT:</b>	Weekly Progress Report @ Gold King
<b>TO:</b>	Kerry Guy

**Project:** Gold King Interim Water Treatment Plant (IWTP)

**Reporting Period:** Sept 19 – Sept 26

**Location:** Gladstone, Colorado

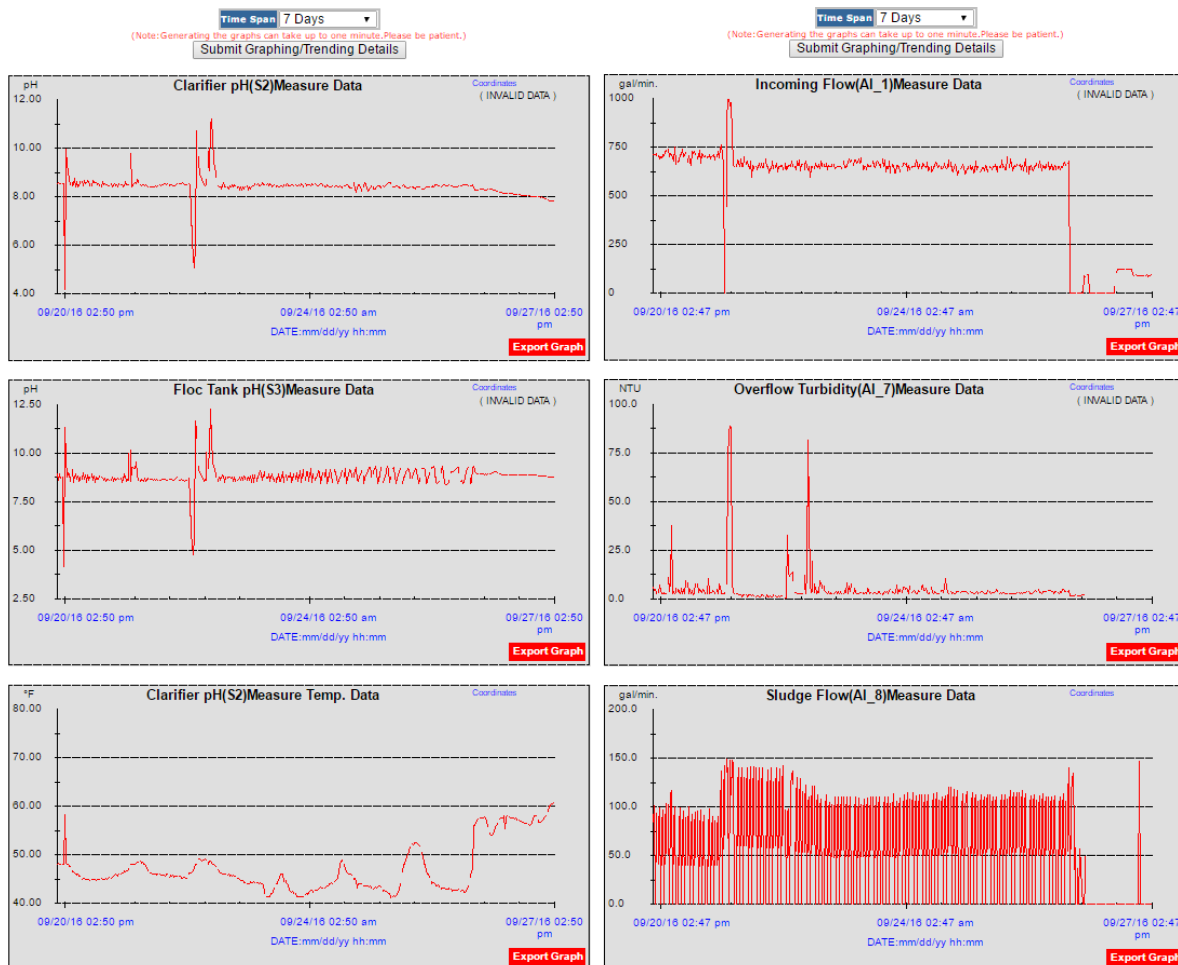
**Report No.:** 37

**Prepared for:** Emergency Response Unit – US EPA Region 8

### I. General Operations Summary:

#### IWTS Function/Upsets

- The following graphs provide trending information during the previous 7 days. The dataloggers collect control information from the Lime Circuit (left) and Flow Circuit (right) Programmable Logic Controllers (PLCs) at the Gold King IWTP. Over the reporting period (9/19 – 9/26/2016 inclusive) Alexco treated 6.87 million gallons at an average flow rate of 682 gpm.



- Please note: Several days each week, the Alexco operators check the pH at both the floc tank and clarifier discharge. During this time, the probe is placed in vinegar (acid), and three pH buffers – 4, 7, and 10. While the probe is in the acid/buffer, the datalogger may capture one of those points for tracking purposes, which explains the occasional pH spikes seen on the graph. In addition, instantaneous spikes of the Overflow Turbidity Meter are associated with routine cleaning, which can cause the meter to spike temporarily up to 100 NTUs.
- Alexco temporarily shut-down the plant on 9/21 to initiate the move of the Phase II clarifier. This new position will allow for the extension of the existing WWTP building.
- Alexco shut-down the Primary Clarifier on 9/26 and bypassed the Reactor Tank. This modification will allow the Reactor Tank to be moved to the newly poured 17' x 17' pad and increase the available space for the building extension.
- A pH sample from the IWTP inlet on 9/22 measured 3.68.
- A pH sample from the IWTP inlet on 9/23 measured 3.82.

#### **Communication System Function Status**

- No issues – reliable operations during the reporting period.

#### **Facility or System Related Work, including Repairs & Completions**

- Alexco relocated the 20-ton Phase II clarifier along with supporting controls and electrical components.
- ER completed the transfer of all sludge from Cell A. Relining design options are currently under consideration for Cells A and B.
- Alexco is currently working with local vendors to bypass and relocate the Reactor Tank and all incoming/outgoing pipelines starting on 9/26.

### **II. Identified Problems, Causes, and Solutions (Planned or Implemented)**

- Recently, it has been noted that the insertion magnetic flow meters used for both incoming and outgoing flow measurements require frequent cleaning. Alexco plans to install a paddlewheel flow meter in the outgoing position to see if a mechanical method of measuring flow is more robust.

### **III. System Inspections – Specific elements inspected and finding**

- N/A

### **IV. Site Status**

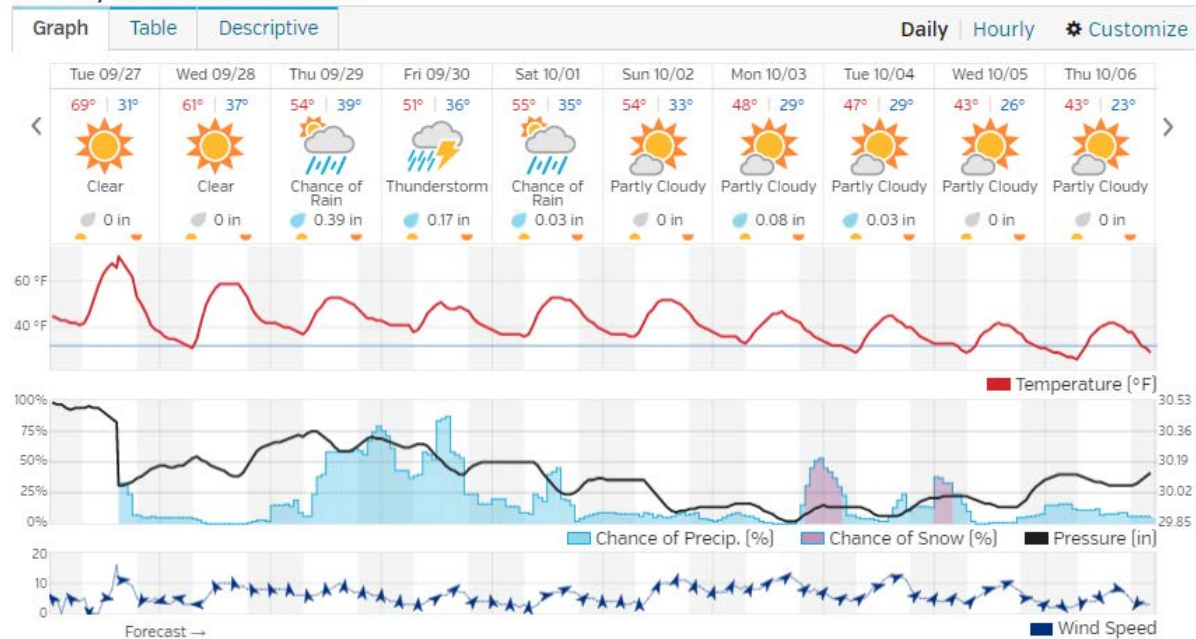
#### **Personnel and equipment onsite**

- Alexco currently employs one full-time employee (FTE) who lives in Silverton and oversees all operations at the Gold King IWTP. He is supported by remote operators in Denver, and local sub-contractors as needed.

## Weather conditions

- Weather Underground Report for Silverton, CO (9/27 – 10/2/2016)

## 10-Day Weather Forecast



## Pictures from Site



Photo 1: Relocation of Phase II clarifier.





Photo 2: Cleaning off Cell A liner after mechanical removal of sludge.



Photo 3: Relocation of Phase II clarifier